

Section 4

Project Execution

It's not enough to be busy, so are the ants. The question is, what are we busy about? – Henry David Thoreau
Bận rộn là chưa đủ, lũ kiến cũng vậy. Câu hỏi đặt ra là chúng ta đang bận về điều gì?





Project Execution

The phase in which the plan designed in the prior phases of the project life cycle is put in action.

Take the loops: monitor, measure, and react.

Project Executing Processes (M&C PMP)

MANAGED SUBJECTS	PROJECT MANAGEMENT PROCESS GROUPS				
	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Integration	10. Proposals and Estimates 11. Initiating project	20. Creating project policies 28. Creating project plans	30. Managing project work 31. Managing configurations	40. Monitoring and controlling project work 41. Change control	50. Closing the project
Scope		22. Creating project WBS			
Time		23. Creating project schedule			
Cost		27. Develop project budget		45. Monitoring project budget	
Quality		24. Creating quality plan	34. Managing quality	42. Monitoring quality	
Human resources		21. Defining project organization	32. Training the project team		
Communication			33. Managing communication		
Stakeholder					
Risk		25. Planning Risk Management	35. Managing risk responses	43. Monitoring risks	
Procurement		26. Planning procurements		44. Managing procurements	

Build Progressive Deliverables

Early detection activities are taken in order to increase the maturity of deliverables in a project execution plan as greater amounts of more accurate information become available.

Effective Communication

Even though the project's progress seems to be on the good way, effective and more frequent communication can boost your execution and helps the project team to reach more goals.

Leadership

In execution, one thing that a project leader should always keep in mind and adhere to is that the role of a leader is to influence, engage, and motivate people to keep working toward a common goal.

Build Progressive Deliverables

Make it run! Make it right! Make it better!



- Control The Scope:
 - **Understand** project requirements.
 - Freeze the scope of work & timeline: eliminate scope-creeps
- Design The Solution:
 - Product Technical & Quality Specifications.
 - Communicate your designs.
- **Task Management: delegate tasks to get work done effectively.**
- **Manage Your Data: monitor progress daily, measure progress regularly.**
- Performing quality assurance: “Checklist On Everything”.
- Early Integration and Testing.
- Manage Project Issues/Risks
- Conduct Procurements



Design The Solution: Drive the right things before going code

- Generalize the overall structure of the entire system should be worked out
 - Focus on **all technical and operational requirements** and keep an overall vision of what the software system should do, and how does the team do implementation, how to do testing the system.
 - Abstraction is the key.
- **Do or capture the architectural designs/documents of the system** (*how to in the next slide*)
- **Communicate your design**
 - Communicate architecture design reviews to all the stakeholders including the client, development team, business owners, and other interested parties.
 - Periodic review of the architecture: Revisit, Review, Identify and Fix architectural problems at the earlier stage the architecture at major project milestones when necessary.
- **Documentation**
 - Detailed recording of the design generated during the software architecting process.

Key Architecting Activities

- Conceptualization of the overall system structure.
- Break down of the structure into well defined elements/components, and identify their relationships.
- Identify cross-cutting components
 - The components handle common functionalities such as user authentication and authorization, exception management, communication, notification, caching, instrumentation & logging, data validation, etc.
 - Define standardized protocol(s) for communication amongst the software elements and cross-cutting components.
- Determine appropriate combination of architectural styles: client/server, component-based, message bus, service-oriented, or others?
- Select technology platform on which the software system will operate.
- Design database, database tables, ER diagrams and CRUD matrix

Task Management Activities

- Organizing tasks: Connect tasks to project goals and keep them SMART
 - Break bigger tasks down into prioritized and actionable tasks.
 - Group tasks into milestones.
 - Properly prioritize tasks.
 - Have descriptive task name, content and targeted outputs.
 - Define completion conditions: apply DoD
- Collaborating: assigning tasks, estimating time, and scheduling tasks.
 - Look at the tasks you've assigned to someone. (You can filter tasks by assignee in Redmine!)
 - Estimate time and use "time-boxing" – Parkinson's Law.
 - Build in buffers for unfamiliar tasks.
- Tracking: manage milestones, task progress, and task status from start to finish
 - Always have a full view of the project: Gantt Chart with progress line.
 - Adjust when situation changes: be proactive about seeing and adjusting to shifting priorities.
 - Remove tasks that aren't being actively worked on from immediate attention.

Example: Task Management using Redmine tool

Settings

Information

Modules

Members

Versions

Select modules to enable for this project:

☒ Issue tracking

☐ Time tracking

☒ Files

☒ Wiki

☐ Repository

☒ Calendar

☒ Gantt

☐ Extra queries

☒ Issue checklist

☐ Divert

Category

Checklist

☒ Search for company activity for last year

☒ Call to David for detailed information

☐ Send "commercial proposal"

☒ Fill CRM data for this company

☐ Test latest version of Helpdesk plugin

☒ Schedule installation and setup for {{contact_plain(2)}}

☒ Review new bug (#599)

Add from template

+

Overview

Activity

Roadmap

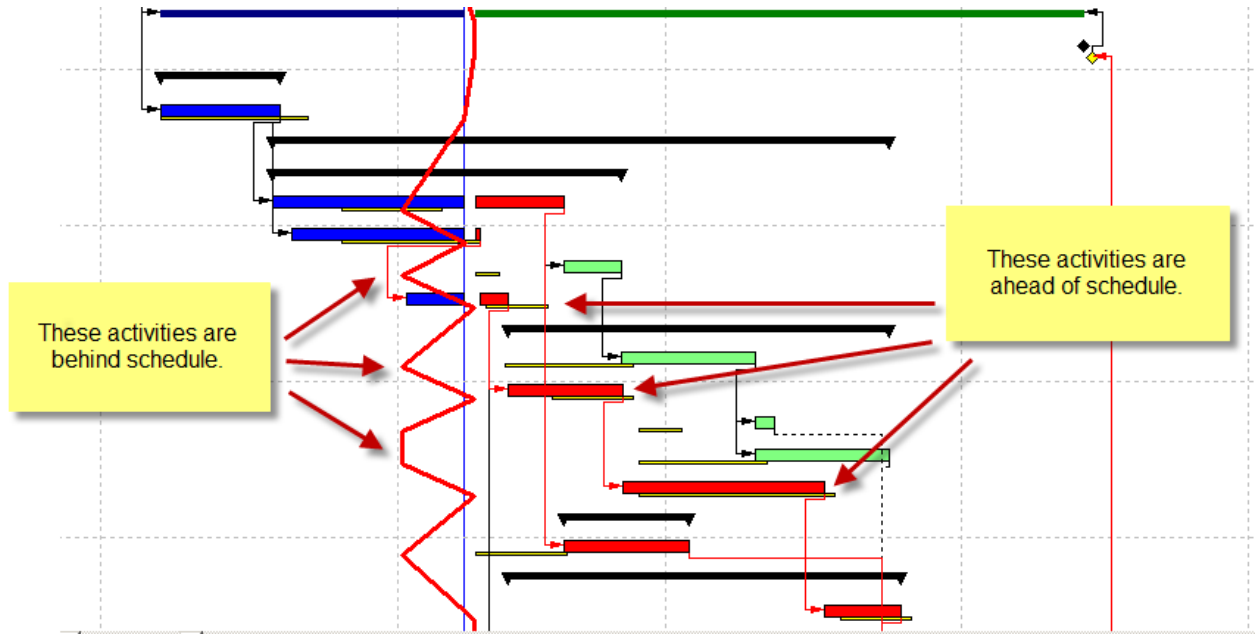
Issues

Gantt

WorkTime

Calendar

Wiki



Gantt

Filters

☒ Status

open

☒ Tracker

is

☒ EVM

is

Options

Related issues

☒ Blocks

☐ Precedes

Progress line

☒ Display

5 months from

October

2021

Apply

Clear

Save

D030.3-FLOG PH3

Task #33928: EVM Task Mangement

Task #33925: 基本設計

Task #33926: PCAPファイルインポート方法の検討

Task #34053: 「他の集計、グラフで集計」設計/検討

Task #34096: 「他の集計、グラフで集計」実装

Task #33927: Wireshark、3GPP Decoderの検討

Task #34058: 「設定したフィルタを変更できるよう...

Task #34059: 「時間指定とか、ブックマーク機能」...

Task #34110: 「設定したフィルタを変更できるよう...

Task #34045: 「DCT対応」設計/検討

Task #34111: 「設定したフィルタを変更できるよう...

Task #34112: 「時間指定とか、ブックマーク機能」...

Task #34046: 「DCT対応」実装

Task #34054: 「表集計」設計/検討

Task #34066: 「ログのオフセット設定」設計/検討

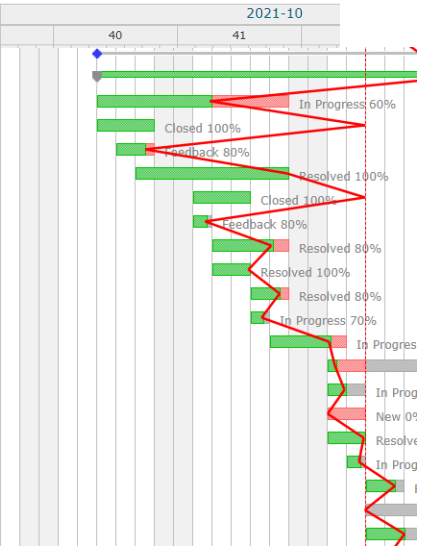
Task #34097: 「他の集計、グラフで集計」テスト

Task #34113: 「時間指定とか、ブックマーク機能」...

Task #34055: 「円グラフを検索画面に入れる」設計...

Task #34065: 「UI/UX 改善」設計/検討

Task #34098: 「表集計」実装

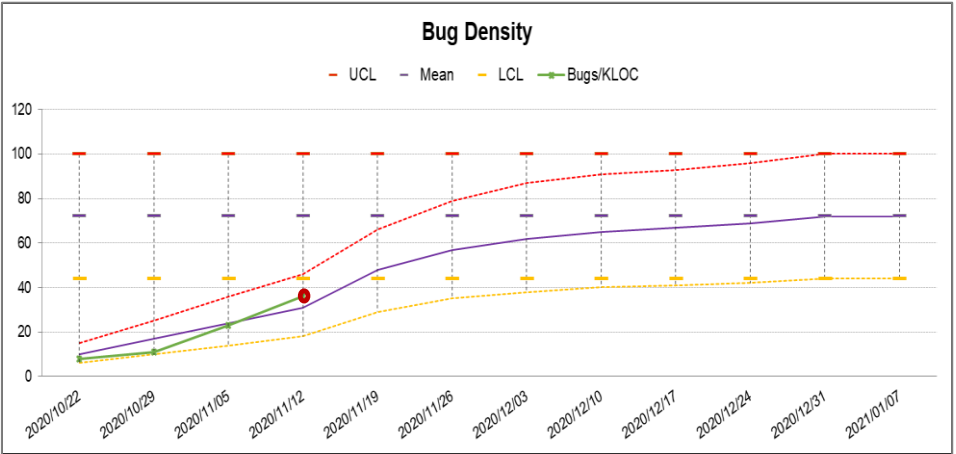
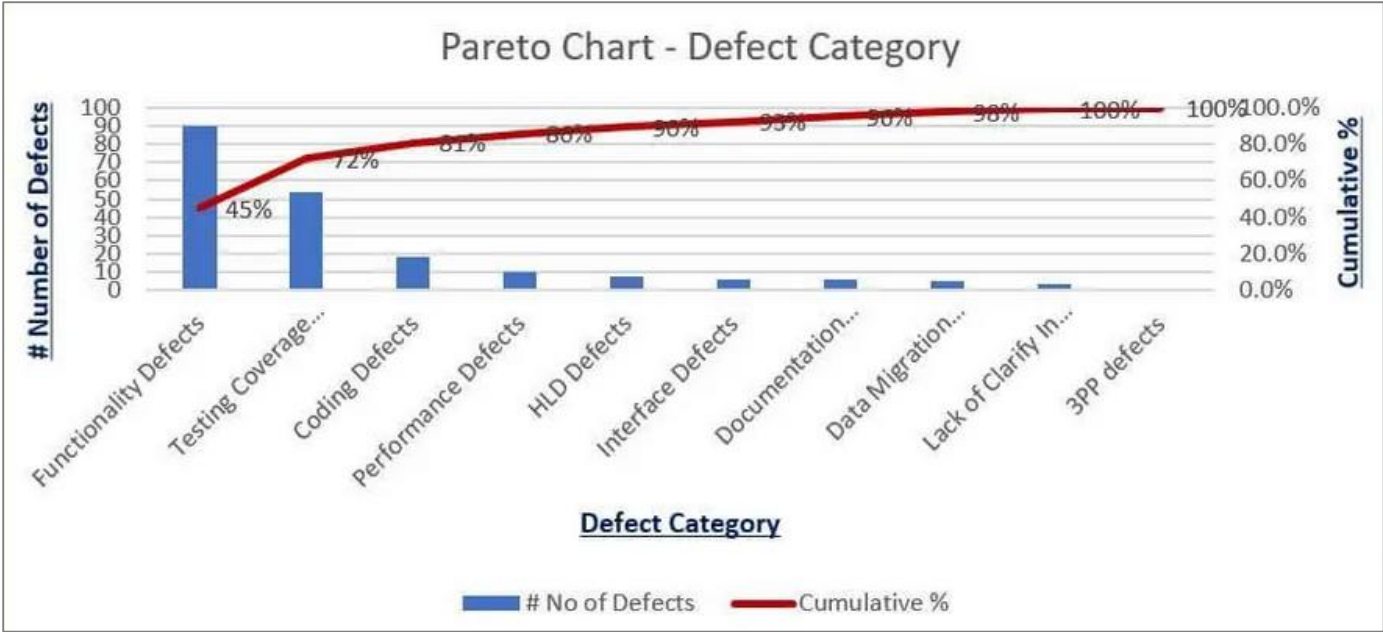
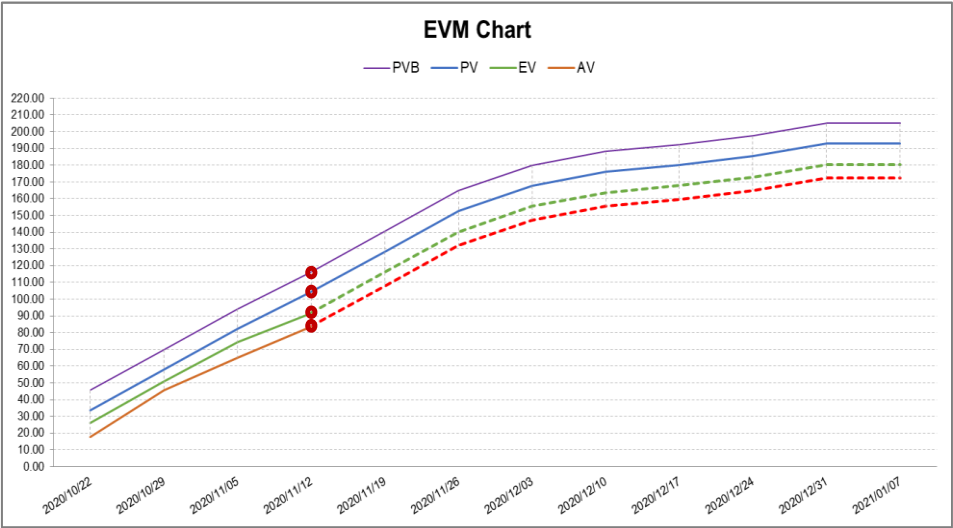
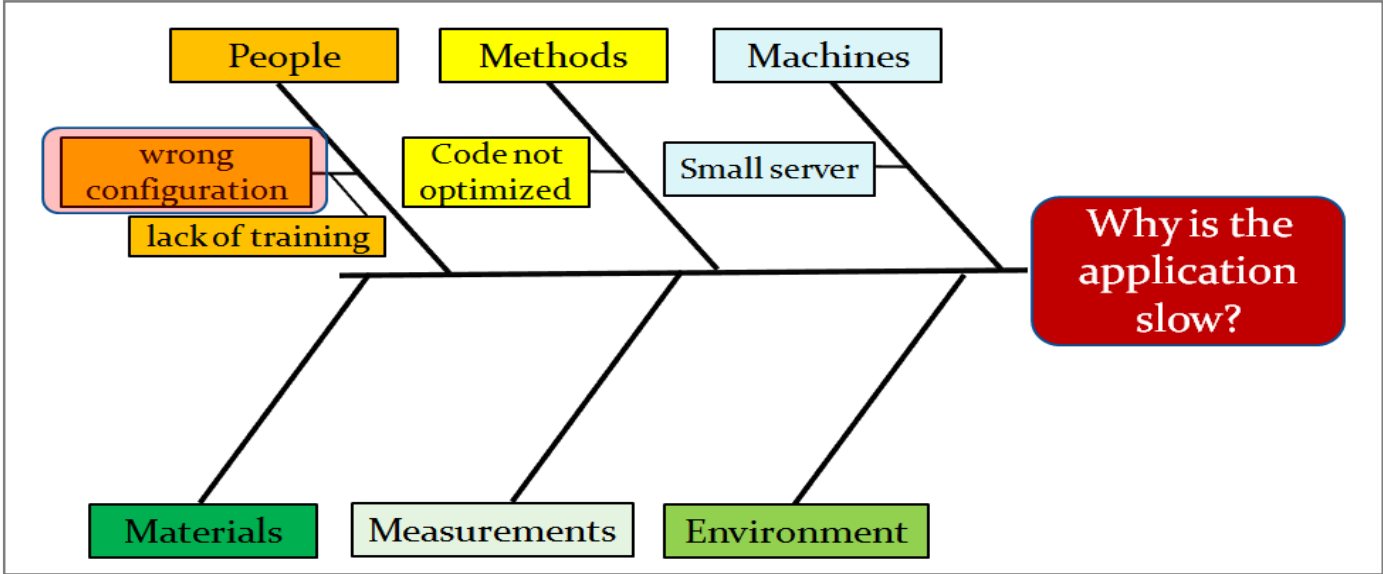


This figure is a detailed Gantt chart for the project "D030.3-FLOG PH3". It shows a list of tasks on the left, each with a corresponding horizontal bar representing its duration and progress. The tasks are color-coded: green for "On Schedule", yellow for "Behind Schedule", and red for "Ahead of Schedule". The chart includes a timeline at the bottom with vertical grid lines for time intervals. The tasks are listed as follows: Task #33928: EVM Task Mangement, Task #33925: 基本設計, Task #33926: PCAPファイルインポート方法の検討, Task #34053: 「他の集計、グラフで集計」設計/検討, Task #34096: 「他の集計、グラフで集計」実装, Task #33927: Wireshark、3GPP Decoderの検討, Task #34058: 「設定したフィルタを変更できるよう...', Task #34059: 「時間指定とか、ブックマーク機能」..., Task #34110: 「設定したフィルタを変更できるよう...', Task #34045: 「DCT対応」設計/検討, Task #34111: 「設定したフィルタを変更できるよう...', Task #34112: 「時間指定とか、ブックマーク機能」..., Task #34046: 「DCT対応」実装, Task #34054: 「表集計」設計/検討, Task #34066: 「ログのオフセット設定」設計/検討, Task #34097: 「他の集計、グラフで集計」テスト, Task #34113: 「時間指定とか、ブックマーク機能」..., Task #34055: 「円グラフを検索画面に入れる」設計..., Task #34065: 「UI/UX 改善」設計/検討, Task #34098: 「表集計」実装.

Manage your project data

- Regularly record the update data:
 - Task status: through face-to-face/virtual meetings ensures everyone has a big-picture view of the project's progress and how each individual's contribution fits into the whole.
 - Progress and Expenses: progress ratio, effort spent time and its variances.
 - Quality assurance, performance factors: Q&A numbers, KLOC counts, defect numbers, UT coverage ratio, running test-case numbers ...
- Setup alerts for items that are nearing their scheduled dates of completion, as well as those that have fallen behind schedule.
- Usually analyze the variances of each short-term goal and take corrective/preventive actions.
 - A combination of tracker system like Redmine and EVM tool.
 - Pareto Chart: 80/20 philosophy.
 - 5Whys, Fishbone diagrams (Ishikawa cause and effect), Decision Tree.
 - Impact Analysis Methods

Example: Analytical Charts



Useful Tools and Techniques

Requirement Status Tracking Tool	Helps checking the status of clarifying customer requirements, so support for requirement management tasks.
Requirement Traceability Matrix	Helps tracing impact analysis across the requirements, test-cases, source code
Earned Value Management Tools	Help visualizing the variance of schedule, cost, and other variance targets
Redmine Gantt Chart	Helps an overall view of project progress and task management.
Redmine Checklist	Used to define completion conditions of (Redmine) tasks
Checklists & Templates	Helps maintain quality assurance activities and improve performance.
UML Tool	Helps having the modeled descriptions from requirements to designs and implementations

Effective Communication

Good Leaders Are Good Communicators



- Distribute information to team members, sponsors, and key stakeholders:
 - Updating your client regularly about the status of the project
 - First-time response, Frontloading method.
- Conduct effective meetings, no agenda-no meeting, avoid “out-stream” discussions disturb the meeting purpose.
- Team Communication:
 - Make the Complex Simple: say what you mean in as few words as possible. Effective leaders distill complex thoughts and strategies into simple, memorable terms.
 - I’m All Ears: Effective communication is two-way. Good leaders know how to ask good questions, and then listen with both their eyes and ears.
 - Be Available and Visible.

The 5 C's Checklist

- Think and plan your communications
- Before you click 'send' or 'save'...
- Your 5 C's checklist:
 - Clear
 - Concise
 - Compelling
 - Consistent
 - Courteous



Communication Tools

Physical:

- Meetings
- Web conferencing
- Stand-Ups
- Walk-Arounds

Electronic:

- Status Reports
- Email
- Instant Messaging

Meetings

- No agenda? No meeting!
- Know your expected outcome
- List items to discuss to ensure your outcome is realized
- Determine who needs to be there
- Send out the agenda prior to meeting
- You are the focus when you're leading the meeting
- Document actions and outcomes
- Key meeting notes:
 - Who attended
 - Agreements
 - Actions
 - Next meeting date / time



5 C's Check !

Web Conferencing

- Follow meeting guidelines
- Use the company's approved web conferer vendor or tools.
- Have an agenda and run it like a meeting
- Avoid “out-stream” discussions disturb the meeting purpose.
- 5 C's Check



Stand Ups

- Definition: quick discussion with a small team or group
- Benefits
 - To get real time feedback on project activities
 - Early avoidance of issues or problems
 - Get a 'pulse' of the team
- Process
 - Quickly around the room
 - What have you done since yesterday?
 - What are you planning to do today?
 - Do you have any problems preventing you from accomplishing your goal?
- Frequency: as needed, but maybe once or twice a week



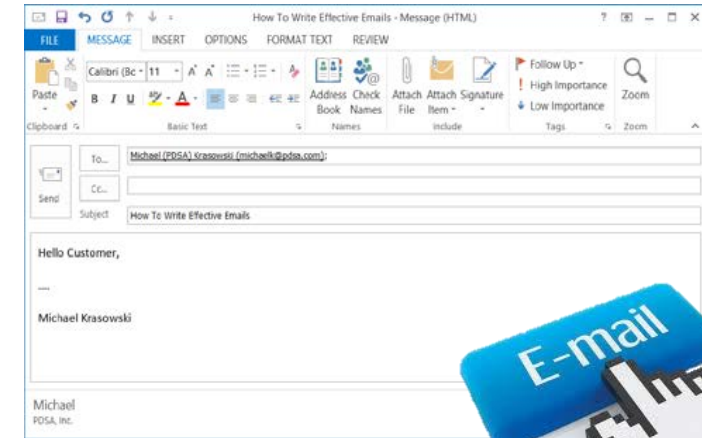
Walk – Arounds

- Casual 'drop in' visits
- Maybe just 3 minutes on the way to lunch or a break
- If you can, visit/talk with:
 - Each team member every day
 - Each customer once a week
 - Each stakeholder twice a month
 - With your manager each day
- If you are not in the same geographical area...
 - Use the telephone for a quick 'drop in'



Emails

- Use templates
 - May be different per customer
 - May be different per project
- TO: the targeted audience
- CC: the optional audience
- SUBJECT: be compelling and on point
- BODY: follow the 5 C's
 - Clear, concise, courteous, consistent, compelling



Leadership

Leading Your Team, Your Customer and Your Management



Leadership

Leadership is the ability to guide others into a direction or decision that leaves them still feeling empowered and accomplished.

- Effective project governance policies.
- Being open to new ideas, promote and support initiatives, improvements.
- Celebrating achievements.
- Engender internal motivation in your team.
- A great leader inspires the team to have confidence in themselves

How Leaders Build The Trust

- Have clear and consistent goals
- Be open, fair and listen
- Be decisive
- Admit mistakes
- Support all team members
- Take responsibility for team actions
- Give credit to team members
- Be sensitive to the needs of team members
- Respect the opinions of others





Before you are a leader, success is all about growing yourself.

When you become a leader, success is all about growing others.

– Jack Welch





Leadership, like swimming, cannot be learned by reading about it.

– Henry Mintzberg



Build Progressive
Deliverables

Effective
Communication

Leadership